


News Release

For Senior You Bin Lee, Concentration on New Antibiotics

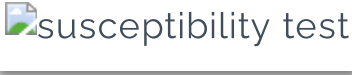
By Elizabeth Tollefson on Monday, July 27, 2015

You Bin Lee in the lab

Associate Professor Brian Dingmann and Senior You Bin Lee are at work in the lab this summer at the University of Minnesota Crookston testing concentrations of antibiotics. As bacteria become more resistant to the current antibiotics, the quest for antibiotics to take their place in the fight against infection becomes increasingly important.

One of the main bacteria is *Staphylococcus aureus* and specifically, Methicillin Resistant *Staphylococcus aureus* (MRSA). To put it simply MRSA is a menace. It constantly remains in the top 10 on the Center for Diseases (CDC) website. Certain strains of MRSA are resistant to most known antibiotics. Dingmann's main research is focused on finding molecules that could potentially be developed as drugs to combat MRSA and other infectious organisms. Dingmann and Lee have been working on proof of concept procedures that use a 96 well susceptibility test and varying concentrations of antibiotics. Lee and another student, Bryant Hamilton will soon start testing bacteria that have shown potential to produce antimicrobial products in these tests. Interestingly, these suspect bacteria were isolated in the general microbiology teaching laboratory and are now being further studied in Dingmann's research lab. Dingmann also collaborates with Dr. Mukku, an organic chemist at UMC, to further characterize the chemistry of the antimicrobial products that show biological activity.

Lee, a biology major from South Korea, is enjoying the opportunity to work with Dingmann. "When I talked to Dr. Dingmann, who is my advisor, about an internship, he offered me this chance to work in the lab," Lee says. "This research is exactly what I wanted because I hope to work in a lab following graduation. When the classes are small like they are here, we build relationships with our professors, and this leads to more learning opportunities for students."

susceptibility test

She came to the Crookston campus in 2012 but last year went home to Korea and worked in a hospital. "When I came back to school, I knew that I did not want to pursue medical school, but I had discovered I really liked the laboratory." So, before she decides on graduate school, Lee wants to gain more experience in the lab perhaps in a hospital laboratory.

You Bin Lee and Brian Dingmann

What is it about the solitude of the lab that she finds rewarding? Without hesitation she responds, "The results are my reward, and when I don't get the results I maybe should have, I enjoy problem solving and figuring out what happened."

Lee is active on campus in the Multicultural International Club, the National Society for Leadership and Success, serving as a tutor in the Academic Success Center, and this fall, she will be a community advisor in residential life. She originally came to the U of M Crookston with her brother, who transferred and recently graduated from the University of Minnesota. "Because my brother was in the Twin Cities, I could compare a big campus to a small one, and I like my campus better," Lee smiles. "It's the right fit for me."

The University of Minnesota Crookston now delivers 33 bachelor's degree programs, 22 minors, and 36 concentrations on campus as well as 14 degree programs entirely online. These degrees are offered in the areas of agriculture and natural resources; business; liberal arts and education; and math, science and technology. With an enrollment of 1,800 undergraduates from more than 20 countries and 40 states, the Crookston campus offers a supportive, close-knit atmosphere that leads to a prestigious University of Minnesota degree. "Small Campus. Big Degree." To learn more, visit www.umcrookston.edu.

In the photos:

Top, left: You Bin Lee at work in the lab.

Top, right: Bryant Hamilton, who works with Lee, will soon start testing bacteria that have shown potential to produce antimicrobial products.

Middle, left, photo shows the 96 well susceptibility test and varying concentrations of antibiotics.

Bottom, right, in the photo are You Bin Lee and Brian Dingmann, Ph.D.

Contact

Brian Dingmann
Math, Science, and Technology Department
218-281-8249

News Categories

[Department - Agriculture and Natural Resources](#)

Tweet

News Home

News Archives



Small Campus. Big Degree..

- Employment

Events Calendar

Academic Calendar

Library

Directories

Maps, Directions & Parking

Quick Facts

Bookstore

- Faculty & Staff

Email & Calendar

Contact Webmaster

System Website

Home

2900 University Ave., Crookston, MN 56716
800-862-6466 | 218-281-6510 | umcinfo@umn.edu

© 2021 Regents of the University of Minnesota. All rights reserved.
The University of Minnesota is an equal opportunity educator and employer.
[Privacy Statement](#)